

PATENT APPLICATION

File No: 00-56

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

: Wayne R. Kindsvogel, Stavros Topouzis

Serial No.

09/925,055

Group Art Unit

1644

Examiner

Filed

August 8, 2001

For

SOLUBLE ZCYTOR11 CYTOKINE RECEPTORS

Date Submitted

: October 15, 2001

RESPONSE TO NOTICE TO FILE MISSING PARTS

Box Missing Parts Commissioner for Patents Washington, DC 20231

Sir:

Respectfully submitted herewith is the Combined Declaration and Power of Attorney signed and dated by Applicants for the above-captioned application. This submission is in response to the Notice to File Missing Parts dated October 4, 2001 (a copy thereof is attached hereto) and is being filed within two months of the date of the letter.

Also submitted herewith are a corrected sequence listing and a substitute sequence listing diskette. This submission is in response to the aforementioned Notice to File Missing Parts dated October 4, 2001.

In each case the sequences were designated "Artificial Sequence." Explanation of the source of genetic material is required (sections <220> to <223>), but was mistakenly omitted. The changes, per the Sequence Listing Error Summary, Item 11, (attached to Notice to File Missing Parts dated October 4, 2001), were made in accordance with the sequence listing rule 37 CFR §1.823, and with support in the originally filed application as follows:

• SEQ ID NO. 30 – Supported in SEQ ID NO. 29

These changes are supported in the originally filed application and hence include no new matter.

The content of the above-captioned application and the computer readable copy is the same and, where applicable, includes no new matter as required by 37 CFR 1.821-1.825.

Applicants claim small entity status. Please charge the total fee, estimated to be \$65.00, to ZymoGenetics, Inc., Deposit Account No. 26-0290. A duplicate of this sheet is enclosed.

Respectfully submitted,

Jennifer K. Johnson, J.D. Registration No. 43,696



1 1

United States Patent and Trademark Office

COMMISSIONER FOR FAIENTS UNITED STATES PATENT AND TRADEMARK OFFICE WASHINGTON, D.C. 20231 www.uspto.gov

| APPLICATION NUMBER | FILING/RECEIPT DATE | FIRST NAMED APPLICANT | ATTORNEY DOCKET NUMBER | | | | |
|--------------------|---------------------|-----------------------|------------------------|--|--|--|--|
| 00/025 055 | 09/09/2001 | Warma D. Kindaraaal | 00.56 | | | | |

09/925.055

08/08/2001

Wayne R. Kindsvogel

00-56

ZymoGenetics, Inc. 1201 Eastlake Avenue East *OC000000006842991* Seattle, WA 98102

CONFIRMATION NO. 2607 FORMALITIES LETTER

Date Mailed: 10/04/2001

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given TWO MONTHS from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is unsigned.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(I) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.
- The balance due by applicant is \$ 65.
- · A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(q), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase Patentin Software, call (703) 306-2600
- For Patentin Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

Customef Service Center
Initial Patent Examination Division (703) 308-1202
PART 2 - COPY TO BE RETURNED WITH RESPONSE

O MORE/

PATENT APPLICATION

File No: 00-56

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Wayne R. Kindsvogel, Stavros Topouzis

Serial No.

09/925,055

Group Art Unit

: 1644

Examiner

.

Filed

: August 8, 2001

For

: SOLUBLE ZCYTOR11 CYTOKINE RECEPTORS

CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)

Box Missing Parts Commissioner for Patents Washington, DC 20231

Sir:

I hereby certify that the attached correspondence comprising:

- 1. Return Postcard
- 2. Response to Notice to File Missing Parts (in duplicate)
- 3. Copy of Notice to File Missing Parts
- 4. Executed Combined Declaration and Power of Attorney
- 5. Sequence Listing Diskette compliant with 37 CFR 1.821-1.825
- 6. Paper Copy of Sequence Listing

is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Box Missing Parts Commissioner for Patents Washington, DC 20231

on October 15, 2001.

<u>Marianne Carello</u>
Marianne Carello

RAW SEQUENCE LISTING ERROR REPORT



0 4 2001

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/925,055Source: 01/25Date Processed by STIC: 08/(6/2001)

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 c-mail hclp: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 c-mail hclp: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker

Raw Sequence Listing Error Summary

| ERROR DETECTED | SUGGESTED CORRECTION SERIAL NUMBER: 09/925, 055 | | | | | | | | | | |
|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| ATTN: NEW RULES CASES | S: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE | | | | | | | | | | |
| lWrapped Nucleics Wrapped Aminos | The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping." | | | | | | | | | | |
| 2Invalid Line Length | h The rules require that a line not exceed 72 characters in length. This includes white spaces. | | | | | | | | | | |
| 3Misaligned Amino Numbering | The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers, use space characters, instead. | | | | | | | | | | |
| 4Non-ASCII | The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text. | | | | | | | | | | |
| 5Variable Length | Sequence(s) contain n's or Xaa's représenting more than one residue. Per Sequence Rules, cach n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing. | | | | | | | | | | |
| 6PatentIn 2.0 "bug" | A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences. | | | | | | | | | | |
| 7Skipped Sequences (OLD RULES) | Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped | | | | | | | | | | |
| | Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences. | | | | | | | | | | |
| 8Skipped Sequences (NEW RULES) | Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000 | | | | | | | | | | |
| 9Usc of n's or Xaa's (NEW RULES) | Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents. | | | | | | | | | | |
| Invalid <213> Response | Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence | | | | | | | | | | |
| 11Usc of <220> | Sequence(s) 30 missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules) | | | | | | | | | | |
| "bug" | Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk | | | | | | | | | | |

AMC - Biotechnology Systems Branch - 06/04/2001

The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

DATE: 08/16/2001

TIME: 13:28:58

OIPE

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Input Set : A:\00-56.txt
                     Output Set: N:\CRF3\08162001\I925055.raw
                                                                      Does Not Comply
                                                                  Corrected Diskette Needed
      4 <110> APPLICANT: Kindsvogel, Wayne R.
             Topouzis, Stavros
                                                                        See page 6 of 7A
      7 <120> TITLE OF INVENTION: SOLUBLE ZCYTOR11 CYTOKINE RECEPTORS
      9 <130> FILE REFERENCE: 00-56
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/925,055
C--> 11 <141> CURRENT FILING DATE: 2001-08-08
     11 <150> PRIOR APPLICATION NUMBER: US 60/223,827
     12 <151> PRIOR FILING DATE: 2000-08-08
     14 <150> PRIOR APPLICATION NUMBER: US 60/250,876
     15 <151> PRIOR FILING DATE: 2000-12-01
     17 <160> NUMBER OF SEQ ID NOS: 35
     19 <170> SOFTWARE: FastSEQ for Windows Version 3.0
     21 <210> SEO ID NO: 1
     22 <211> LENGTH: 2831
     23 <212> TYPE: DNA
     24 <213> ORGANISM: Homo sapien
     26 <220> FEATURE:
     27 <221> NAME/KEY: CDS
     28 <222> LOCATION: (34)...(1755)
     30 <400> SEQUENCE: 1
                                                                                54
       tagaggccaa gggagggctc tgtgccagcc ccg atg agg acg ctg ctg acc atc
     32
                                              Met Arg Thr Leu Leu Thr Ile
     33
       ttg act gtg gga tcc ctg gct gct cac gcc cct gag gac ccc tcg gat
                                                                               102
       Leu Thr Val Gly Ser Leu Ala Ala His Ala Pro Glu Asp Pro Ser Asp
     37
                                                                               150
     39 ctg ctc cag cac gtg aaa ttc cag tcc agc aac ttt gaa aac atc ctg
        Leu Leu Gln His Val Lys Phe Gln Ser Ser Asn Phe Glu Asn Ile Leu
     4 O
                                  30
                                                                               198
        acq tqq gac agc ggg cca gag ggc acc cca gac acg gtc tac agc atc
    43
        Thr Trp Asp Ser Gly Pro Glu Gly Thr Pro Asp Thr Val Tyr Ser Ile
     44
                                                  50
    45
                              45
                                                                               246
        gag tat aag acg tac gga gag agg gac tgg gtg gca aag aag ggc tgt
        Glu Tyr Lys Thr Tyr Gly Glu Arg Asp Trp Val Ala Lys Lys Gly Cys
     49
                          60
        cag cgg atc acc cgg aag tcc tgc aac ctg acg gtg gag acg ggc aac
                                                                               294
     51
        Gin Arg Ile Thr Arg Lys Ser Cys Asn Leu Thr Val Glu Thr Gly Asn
     52
                                          80
                      75
        ctc acg gag ctc tac tat gcc agg gtc acc gct gtc agt gcg gga ggc
                                                                               342
       Leu Thr Glu Leu Tyr Tyr Ala Arg Val Thr Ala Val Ser Ala Gly Gly
     56
                                      95
     57
                  90
                                                                               390
     59 cgg toa goo acc aag atg act gac agg tto ago tot otg cag cac act
     60 Arg Ser Ala Thr Lys Met Thr Asp Arg Phe Ser Ser Leu Gln His Thr
                                 110
                                                                               438
        acc ctc aag cca cct gat gtg acc tgt atc tcc aaa gtg aga tcg att
        Thr Leu Lys Pro Pro Asp Val Thr Cys Ile Ser Lys Val Arg Ser Ile
     64
     65
                             125
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/925,055

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/925,055

DATE: 08/16/2001 TIME: 13:28:58

Input Set : A:\00-56.txt
Output Set: N:\CRF3\08162001\I925055.raw

| 67 68 69 | _ | - | | gtt Val | | | | | - | | | _ | - | | - | - | 486 |
|--|---|--|---|---|---|---|--|---|---|---|---|---|--|---|---|--|------------------------------------|
| 71 72 73 | | | | acc Thr 155 | | | | | | | | | | | | | 534 |
| 75 76 77 | | | _ | gtc Val | | - | | | | - | | | | | | | 582 |
| 79 80 81 | | | | gag Glu | | | | | | | | | | | | | 630 |
| 83 84 85 | | | | att Ile | Cys | | | | | | | | | | | | 678 |
| 87 88 89 | | | | gtg Val | | | | | | | | | | | | | 726 |
| 91 92 93 | | | | ttc Phe 235 | | | | | | | | | | | | | 774 |
| 95 96 97 | | | | tac Tyr | | | | | | | | | | | | | 822 |
| | | | | | | | | | | | | | | | | | 0.7.0 |
| 99 100 101 | _ | | | _ | - | _ | _ | Thr | | - | _ | | a Arg | | | cag Gln | 870 |
| 100 | Leu gag | Asr 265 cac His | Val gtc | Gln ctg | Arg | Val cct | Leu 270 gtc Val | Thr | Phe gac | Gln | Pro | Leu 275 ggc Gly | Arg | Phe ago | : Ile : agt | | 918 |
| 100 101 103 104 | gag Glu 280 gcc | Asr 265 cac His | Val gtc Val | Gln ctg | Arg atc Ile cag | Val cct Pro 285 tac | Leu 270 gtc Val | Thr ttt Phe cag | gac Asp | Gln ctc Leu agg | ago Ser 290 gtg | Leu 275 ggc Gly | Arg | Phe ago Ser | : agt : Ser : agg | Cln ctg Leu 295 gag Glu | |
| 100 101 103 104 105 107 108 | gag Glu 280 gcc Ala | Asr 265 cac His cac Glr | Val gtc Val cct Pro | Gln ctg Leu gtc | Arg atc Ile cag Gln 300 cca | Val cct Pro 285 tac Tyr | Leu 270 gtc Val tcc Ser | Thr ttt Phe cag Gln cat | Phe gac Asp atc | ctc Leu agg Arg 305 ctg | ago Ser 290 gtg Val | Leu 275 ggc Gly tct Ser | Argonia Argoni | Phe ago Ser ccc Pro | agt Ser agg Arg 310 | Cln ctg Leu 295 gag Glu tta | 918 |
| 100 101 103 104 105 107 108 109 111 112 | gag Glu 280 gcc Ala ccc Pro | Asr 265 cac His cac Glr gca Ala | Valiante Val | Gln ctg Leu gtc Val gct Ala 315 gac Asp | atc Ile cag Gln 300 cca Pro | Val cct Pro 285 tac Tyr cag Gln | Leu 270 gtc Val tcc Ser cgg Arg | Thr ttt Phe cag Gln cat His | gac Asp atc Ile agc Ser 320 cag | e Gln ctc Leu agg Arg 305 ctg Leu | e ago Ser 290 gtg Val tcc Ser | 275 ggc Gly tct Ser gag | Argon Argon Argon Argon Pro | Phe ago Ser ccc Pro | agt ser agg Arg 310 tac Tyr | Cln ctg Leu 295 gag Glu tta | 918 966 |
| 100 101 103 104 105 107 108 109 111 112 113 115 116 117 119 120 | gag Glu 280 gcc Ala ccc Pro | Asr 265 cac His cac Glr gca Ala cac | y cct gga gga gga gga gca gca gca gca gca gca | Gln ctg Leu gtc Val gct Ala 315 gac Asp | atc Ile cag Gln 300 cca Pro atc Ile | Val cct Pro 285 tac Tyr cag Gln tcc ser | Leu 270 gtc Val tcc Ser cgg Arg atc Ile | Thr ttt Phe cag Gln cat His ctc Leu 335 tat Tyr | gac Asp atc Ile agc Ser 320 cag Gln | e Gln c ctc Leu agg Arg 305 ctg Leu ccc | ago Ser 290 y Val tcc Ser tcc | Leu 275 ggc Gly tct Ser Glu aac Asr | Argonia Argoni | Phe ago Ser ccc Pro acc Thr 325 cca Pro | agt ser agg Arg 310 tac Tyr cct pro | ctg Leu 295 gag Glu tta Leu ccc Pro | 918 966 1014 |
| 100 101 103 104 105 107 108 109 111 112 113 115 116 117 120 121 123 124 | gag Glu 280 gcc Ala ccc Pro ggg Gly cag Gln | Asr 265 cac His cac Glr gca Ala cac Glr atc 11e 345 ccc | y cct y cct y cct y cct y cca y cca y cca y cca y cca y cca y cca y cca y cca y cct y cca y cct y cca y cct y cca y cct y cca y cct y cca y cct y cct | Gln ctg Leu gtc Val gct Ala 315 gac Asp | atc Ile cag Gln 300 cca Pro atc Ile cca Pro tat | Val cct Pro 285 tac Tyr cag Gln tcc Ser ctg Leu gca | Leu 270 gtc Val tcc Ser cgg Arg atc Ile tcc Ser 350 cct | Thr ttt Phe cag Gln cat His ctc Leu 335 tat Tyr cag | gac Asp atc Ile agc Ser 320 cag Gln gcc Ala | e Gin c ctc Leu agg 305 ctg Leu ccc Pro | ago Ser 290 Yal Ttoo Ser tco Ser Asn | Leu 275 ggc Gly tct Ser Glu Asr Ala 355 gaa Glu | Argonia Argonia Argonia Argonia Argonia Alamania geta | Phe ago Ser ccc Pro | agt agt ser agg Arg 310 tac Tyr cct Pro | ctg Leu 295 gag Glu tta Leu ccc Pro gtc Val | 918 966 1014 1062 |
| 100 101 103 104 105 107 108 109 111 112 113 115 116 117 119 120 121 123 | gagg Glu 280 gcc Ala ccc Pro ggg Gly cag Gly 360 ttc | Asr 265 cac His cac Glr atc 345 ccc Pro | y Val | Gln ctg Leu gtc Val gct Ala 315 gac Asp tcc Ser | atc Ile cag Gln 300 cca Pro atc Ile cca Pro tat Tyr cag | Val cct Pro 285 tac Tyr cag Gln tcc Ser ctg Leu gca Ala 365 gcc Ala | Leu 270 gtc Val tcc Ser cgg Arg atc Ile tcc Ser 350 cct Pro | Thr ttt Phe cag Gln cat His ctc Leu 335 tat Tyr cag Gln tct | gac Asp atc Ile agc Ser 320 cag Gln gcc Ala gtg Val | e Gin ctc Leu agg 305 ctg Leu ccc Pro cca Pro | ago Serr 290 gtg Val Ser tco Ser Asn 200 70 60 70 60 60 60 60 60 60 60 60 60 60 60 60 60 | Leu 275 ggc Gly tct Ser Glu aac Asr gct Asr gga Glu cct | Argonia Argonia Argonia Argonia Argonia Argonia Alamana Argonia Argoni | Phe ago Ser ccc Thr 325 cca Pro cat Pro cat Ct Pro cat Ct | agt agt Ser agg Arg 310 tac Tyr cct Pro | ctg Leu 295 gag Glu tta Leu ccc Pro gtc Val cca Pro 375 gcc Ala | 918 966 1014 1062 1110 |

RAW SEQUENCE LISTING

DATE: 08/16/2001 PATENT APPLICATION: US/09/925,055 TIME: 13:28:58

Input Set : A:\00-56.txt

Output Set: N:\CRF3\08162001\I925055.raw

| 136 Glu Gly Ser Gly Lys Asp Ser Pro Thr Gly Thr Leu Ser Ser Pro Lys 410 415 420 420 420 420 420 420 420 420 420 420 420 420 420 420 420 420 420 420 425 430 435 435 425 430 435 436 446 445 446 445 450 450 455 450 455 450 450 455 450 450 455 450 450 455 450 450 455 450 450 455 450 450 455 450 450 455 450 | 132 133 | Pro | Gln | Ala | Thr | Pro | Asp | Ser | Trp | Pro | Pro | Ser | Tyr | Gly | Val 405 | Cys | Met | |
|--|------------|--------|-------|-------|-------|-------|-------|-------|------|----------------|-------|------|-------|-------|------------|--------------|--------|---------|
| 136 Glu Gly Ser Gly Lys Asp Ser Pro Thr Gly Thr Leu Ser Ser Pro Lys 410 415 420 420 420 420 420 420 420 420 420 420 420 420 425 430 435 | | gaa (| ggt | tct | ggc | aaa | gac | tcc | CCC | act | ggg | aca | ctt | tct | agt | act | aaa | 1302 |
| 1350 | 136 | Ğlu (| Gly | Ser | Gly | Lys | Asp | Ser | Pro | Thr | Gly | Thr | Leu | Ser | Ser | Pro | Lys | |
| His Leu Arg Pro Lys Gly Gln Leu Gln Lys Glu Pro Pro Ala Sly Ser 425 | 137 | | | 410 | | | | | 415 | | | | | 420 | | | | |
| 141 425 430 435 1398 1438 tgc atg tta ggt ggt ctt tct ctg caq gag gtg acc tcc ttg cat atg 1398 144 Cys Met Leu Gly Gly Leu Ser Leu Gln Glu Val Thr Ser Leu Ala Met 445 450 455 147 gag gaa toc caa gaa gca aaa toc ttg cac cac cag ccc ctg ggg att tgc 1446 1450 470 1446 148 Glu Glu Ser Gln Glu Ala Lys Ser Leu His Gln Pro Leu Gly Ile Cys 460 465 470 446 450 470 1446 151 aca gac aga aca tct t gac cca aat gtg cta cac agt ggg gag gaa ggg 1494 485 1494 1494 1494 1494 1494 1494 1494 1494 1494 1494 1494 1495 1494 1494 1494 1494 1494 1495 1494 1495 1494 1495 1494 1495 1494 1495 1494 1495 1494 1494 1495 1494 1495 1494 1494 1494 1495 1496 1495 1496 1495 1496 1495 1495 | 139 | | | | | | | _ | | | | | | | | | | 1350 |
| 143 tgc atg tta ggt ggc ctt tct ctg cag gag gtg acc tcc ttg gct atg 1398 144 Cys Met Leu Gly Gly Leu Ser Leu Gln Glu Val Thr Ser Leu Ala Met 450 455 147 gag gaa tcc caa gaa gca aaa tca ttg cac cag ccc ctg ggg att tgc 1466 1470 148 Glu Glu Ser Gln Glu Ala Lys Ser Leu His Gln Pro Leu Gly Ile Cys 470 480 465 151 aca gac aga aca tct gac cca aat gtg cta cac agt ggg gag gaa ggg 1494 1490 480 485 152 Thr Asp Arg Thr Ser Asp Pro Asn Val Leu His Ser Gly Glu Glu Glu Glu 475 480 485 155 aca cac cag tac cta aag ggc cag ctc ccc ctc ctc ttc tcc tag tc cag 1542 155 aca cac ag tac cta aag ggc cag ctc ccc ctc tc tcc tt tcc gtc cag 1542 156 Thr Pro Gln Tyr Leu Lys Gly Gln Leu Pro Leu Leu Ser Ser Val Gln 157 490 495 500 1590 1590 1590 1590 1590 1590 1661 161 161 161 161 161 161 161 161 162 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 | 140 | His : | Leu | Arg | Pro | Lys | Gly | Gln | Leu | Gln | Lys | Glu | | Pro | Ala | Gly | Ser | |
| 144 Cys Met Leu Gly Gly Leu Ser Leu Gln Glu Val Thr Ser Leu Ala Met | | | | | | | | | | | | | | | | | | |
| 145 440 445 450 455 147 gag gaa tee caa gaa gea aaa tee tee tee tee tee geg att tee 1446 148 Glu Glu Ser Gln Glu Ala Lys Ser Leu His Gln Pro Leu Gly Ile Cys 1496 149 460 465 470 151 aca gac aga aca tet gac cea aat gtg cta cac agt ggg gag gag ggg 1494 152 Thr Asp Arg Thr Ser Asp Pro Asn Val Leu His Ser Gly Glu Glu Glu 1494 153 475 480 485 155 aca cac cac agt tee cta aag ggc cac cec ct ce ct ce tee tee gee cag 1542 156 Thr Pro Gln Tyr Leu Lys Gly Gln Leu Pro Leu Leu Ser Ser Val Gln 157 157 490 495 500 158 ate gag gge cac ce atg tee cte cet ttg caa cet cet tee gg cea 1590 160 Ile Glu Gly His Pro Met Ser Leu Pro Leu Gln Pro Pro Ser Gly Pro 510 515 163 tgt tee cec teg ga caa gge caa gee cet gg ge cet geg ge teg gg ge ge ctt ggg ge ge ge ctt gg gg ctt gg gg ge gg ge gg ge gg ge gg ge gg ge gg gg | | - | _ | | | | | | - | | | | | | | | | 1398 |
| 1446 148 149 | | 4 | Met | Leu | Gly | Gly | | Ser | Leu | Gln | Glu | | Thr | Ser | Leu | Ala | | |
| 148 | | | | | | | | | | | | | | | | - 4 4 | | 1 4 4 - |
| 149 | | | | | | | | | | | | | | | | | | 1446 |
| 151 | | Glu (| Glu | Ser | GIN | | Ala | гуѕ | Ser | Leu | | GIN | Pro | Leu | стХ | | Cys | |
| 152 | | | | | | | ~ | | 224 | ~+~ | | 000 | 2 art | ~~~ | ~~~ | | ~~~ | 1 / 0 / |
| 153 | | | | | | | | | | | | | | | | | | 1494 |
| 155 | | Int A | ASP | Arg | | Ser | ASP | PIO | ASII | | ьеи | птъ | ser | СТУ | | GIU | Gry | |
| 156 Thr Pro Gln Tyr Leu Lys Gly Gln Leu Pro Leu Leu Ser Ser Val Gln 490 495 500 159 atc gag ggc cac ccc atg tcc ctc cct ttg caa cct cct tcc ggt cca 1590 160 Ile Glu Gly His Pro Met Ser Leu Pro Leu Gln Pro Pro Ser Gly Pro 161 505 510 515 163 tgt tcc ccc tcg gac caa ggt cca agt ccc tgg ggc ctg ctg gag tcc 1638 1638 1638 1638 164 Cys Ser Pro Ser Asp Gln Gly Pro Ser Pro Trp Gly Leu Leu Glu Ser 165 520 525 530 535 167 ctt gtg tgt ccc aag gat gaa gcc aag agc ca gcc cct gag acc tca 1686 1686 Leu Val Cys Pro Lys Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser 1686 | | 202 | 000 | 0.20 | | at a | 220 | aac | cad | | 000 | ctc | ctc | too | | ata | cad | 1540 |
| 157 | | | | | | | | | | | | | | | | | | 1342 |
| 159 atc gag ggc cac ccc atg tcc ctc cct ttg caa cct cct tcc ggt cca 160 Ile Glu Gly His Pro Met Ser Leu Pro Leu Gln Pro Pro Ser Gly Pro 161 505 510 515 163 tgt tcc ccc tcg gac caa ggt cca agt ccc tgg ggc ctg gag tcc 164 Cys Ser Pro Ser Asp Gln Gly Pro Ser Pro Trp Gly Leu Glu Ser 165 520 525 530 535 167 ctt gtg tgt ccc aag gat gaa gcc aag agc cca gcc cct gag acc tca 168 Leu Val Cys Pro Lys Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser 169 540 545 550 171 gac ctg gag cag ccc aca gaa ctg gat tct ctt ttc aga ggc ctg gcc 1734 174 Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala 175 555 560 565 177 ctg act gtg cag tgg gag tcc tgaggggaat gggaaaggct tggtgctcc 1785 178 Leu Thr Val Gln Trp Glu Ser 179 570 181 tccctgtcc tacccagtgt cacatccttg gctgtcaatc ccatgcctgc ccatgcaca 1845 182 caccttgcga tctggcctca gacggtgcc cttgagaga gcagagggag tggcatgcag 1965 183 ggcccttgc atggggtgcg tctcaccgg aacaaagcag catgataagg actgcaggg 184 acaccatggt tcaaagtgc tcgtgagaat tgcctcctct tgcccattc tcgcagagt 185 aaatgacagt gaaaggaga aatgcaggga aactcccgag gtccagagcc ccacctota 2025 186 gaagagact tgaaaagga ccaggcaggat tgcctctct tcgcccattc ctgccagt 186 cacaccatgga ttcaaagtgc tcagggaatt tgcctctct tcgcccattc tcggcagt 186 gaagagagc tggaaagaa ccaggcctgg aacaagaacc gaagaggag ggcaggag 196 gtgtggcct cagctcttc caaggcagg caactcaccag gaaggagag 196 gtgtggcct caagtcattc ccaggcagg caactcaccag gaaggaga cacacaagct 187 cacatct gtcaaaagga caaggcagg caactcaccag gaaggaga cacacacagct 188 gaagagagc tggaaaagaa ccaggcctgg aacagaacca gaaggagc tggaaagca 2265 189 agaacaacct gcactctgc caaggccagg caactcaccag gaaggagac ctaaaggagg 190 gtgtggcctg cagctcattc ccaggcagg caactcaccag gaaggaga cacacaagct 189 gtgtggcct caggagttc aagacctatc ctggaaatga ggtttgaaag gaaggtgag 190 gtgtggccc ctgaacgga acacacacacacacacacacacacacacacac | | 1111 1 | FIO | | тут | пеп | цуз | СТУ | | пец | 110 | пси | пси | | JCI | vai | 0111 | |
| Tie Glu Gly His Pro Met Ser Leu Pro Leu Gln Pro Pro Ser Gly Pro 161 505 510 510 515 163 tgt toe dee tog gae daa ggt cea agt eee tgg gge etg etg gag toe 1638 164 Cys Ser Pro Ser Asp Gln Gly Pro Ser Pro Trp Gly Leu Leu Glu Ser 165 520 525 530 535 167 ctt gtg tgt dee aag gat gaa gee aag age daa gee deet gag ace toe 1686 168 Leu Val Cys Pro Lys Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser 169 540 545 550 171 gae dtg gag dag dee aag act gat tet ett tte aga gge dtg gee 1734 174 Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala 175 555 560 565 177 ctg act gtg cag tgg gag tee tgaggggaat gggaaagget tggtettee 1785 178 Leu Thr Val Gln Trp Glu Ser 179 570 181 tedetgtede tadecagtgt dacatedtig getgteaate deatgeetge deatgeagag 1965 182 gagggetetg ggaggeaget tgtgtagada acadaagaag dagaagaggag tggdatgdag 1965 183 gggeettge atgggtege tectdacegg aacaaagaag dagaagagga tggdatgdag 1965 184 gagaggetetg ggaagagag aatgdagga aactecegag gtecagage deacatette tggdagada 2025 185 aaatgacagt gcaaggagga aatgdagga aactecegag gtecagage coacetotta 2025 186 acaceatgga ttdaaaagtg tagggaatt tggeteteet tgeecatte ctggcagtt 2245 187 teacaateta getegacaga gcatgagge cetgeceteet tggecagte tggaaggag 2265 188 gaagagagee tggaaaagaa caaggeetgg aaaagaaca gaaggagga ggcagaace 2265 189 agaacaacet gcaettetge caaggeetgg dacaaceaggag geaggagga gggaaggaa 2266 189 agaacaacet gaactettg caaggeetgg aaaagaaca gaaggagga ggcaggaga 2266 189 agaacaacet gaactettg caaggeetgg ggeagaace 2266 189 agaacaacet gaactettg caaggeetgg ggeagaace 2266 189 agaacaacet gaactettg caaggeetgg ggeagaace 2266 189 agaacaacet gaactettg caaggeetgg ggeagagga caacaagacet 2266 189 agaacaacet gaactettg caaggeetgg ggeagaaga ggagggagaa acaacaagagg 190 gtgtggeetg cagetaate caaggeetgg ggeagaagg ggttgaaag gaaggtgagg 190 gtgtggeetg cagetaate caagacaaga ggtcaacaag ggagggagaa acaacaagacet tttetgaagag aggaggaggaa acaacaagacet tttetgaagagg aggaggaggaa acaacaagacet tttetgaagagg aggaggagaa gaggaggagaa gaggaggag | | atc (| a a a | | cac | CCC | ato | tcc | | cct | tta | саа | cct | | tcc | aat | cca | 1590 |
| 161 505 510 510 515 163 tgt tee eec teg gae caa ggt cea agt eec tgg gge etg etg gag tee 1638 164 Cys Ser Pro Ser Asp Gln Gly Pro Ser Pro Trp Gly Leu Leu Glu Ser 520 525 525 530 535 167 ett gtg tgt eec aag gat gaa gee aag age eed gee eet gag ace tea 1686 168 Leu Val Cys Pro Lys Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser 540 545 550 171 gae etg gag eag eec aca gaa etg gat tet ett tte aga gge etg gee 1734 174 Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala 175 555 560 565 177 etg act gtg eag tgg gag tee tgaggggaat gggaaagget tggtgetee 1785 181 teeettgee tacceagtgt cacateettg getgteaate eeatgeetge ceatgeeaca 1845 182 caettetgea tetggeetea gaegggtgee ettgagagaa geagagggag tggeatgeag 1965 183 ggeeettge atgggtgee teeteacegg aacaaageag eatgataag aetgeaggg 1965 184 gggagetetg gggageaget tgtgtagaea ageegtget egetgagee tgeaaggeag 2025 185 aaatgacagt geaaggagga aatgeagga aacteeetg gteeaate eeatgeette etgeeagte 2145 186 aeaceatgga tteaaagte teagggaat tgeetteet tgeeceatte etgeeagte 2265 187 teacaateta getegacaga geatgagge eetgeette tgeeceatte etggeeagte 2265 188 gaagagagee tggaaaaga ceaggeetgg aaaagaacea gaaggaget gggeaggae 2265 189 agaacaacet geaettetge eaagteegg aaaagaacea gaaggaget teaggaggg 2385 190 gtgtggeet eagettatte eeageeagg caactgeetg aegttgeaag atteaggt 2385 191 eatteetetg atagaacaa gegaaatge ggeeagaagg ggtttgaaag gaaggagga 2505 192 tttetgeagg eaggagttt agaecetate etggaaatg ggtttgaaag gaaggagga 2505 193 getgtgeec etggaacggg aaaaaaacaa aegtgeetgg ggtttgaaag gaaggtagag 2505 195 getgtggeec etggaacggg acaaataacaa aetgaactg tgttsaaag gaaggtgag 2505 195 getgtggeec etggaacgag acaaataacaa aetgaactg tgttsaaag gaaggtgag 2505 195 getgtggeec etggaacgag acaaataacaa aetgaactg tgttsaaag gaaggtgag 2505 196 getgtggeec etggaacgag acaaataacaa aetgaactg tgttsaaat ttgeaagtt tgeaacaattetgeeceatte etggaaggag 2505 197 gaggagagagagagagagagagagaacaaaagaagaacaaagagagagagagagagagagagagagagagagagagag | | | | | | | | | | | | | | | | | | 1000 |
| tgt tcc ccc tcg gac caa ggt cca agt ccc tgg ggc ctg ctg gag tcc 1638 164 | | | | Ory | | 110 | 1100 | | ДСС | | Dea | O.L | | 110 | 001 | 0 - 1 | | |
| Cys Ser Pro Ser Asp Gln Gly Pro Ser Pro Trp Gly Leu Leu Glu Ser 165 520 525 530 535 167 ctt gtg tgt ccc aag gat gaa gcc aag agc cca gcc cct gag acc tca 1686 168 Leu Val Cys Pro Lys Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser 169 540 545 550 171 gac ctg gag cag ccc aca gaa ctg gat tct ctt ttc aga ggc ctg gcc 1734 174 Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala 175 555 560 565 177 ctg act gtg cag tgg gag tcc tgaggggaat gggaaaggct tggtgcttcc 1785 178 Leu Thr Val Gln Trp Glu Ser 179 570 181 tecetgteec tacccagtgt cacatecttg gctgtcaatc ccatgcctge ccatgccaca 1945 182 cactetgega tctggcctca gacgggtgcc cttgagagaa gcagagggag tggcatgcag 1905 183 ggccctgc atgggtgcg tcctcaccgg aacaaagcag catgataagg actgcaggg 1965 184 gggagctetg ggaggagaat tggttagaca agcgctgct cgctgagcce tgcaaggcag 2025 185 aaatgacagt gcaaggagga aatgcaggga aactcccgag gtccagagcc caacetotta 1965 186 acaccatgga ttcaaagtgc tcagggaatt tgcctctct tgcccattc ctggccagt 2205 187 tcacaatcta gctcgacaga gcatgagga catgactag 1905 188 gaagagagc tggaaagaa ccaggcctgg aaaagaacca gaaggaggt gggcagaacc 2205 189 agaacaacct gcacttctgc caaggccagg ccactgcttct ctgtcattgt tcaaaggtgg 2205 189 gagagcacct gaacaaca gcatgacag gcaaggaga cggcaggact ctagggagg 2325 190 gttggcct cagcactatc ccagccagg caactgccta acttcagcct 2385 191 cattcctct atgaacaaa gcgaaatgca ggtccacca ggagggagaacc accaagcct 2365 192 tttctgcagg caggaggtttc agaccctatc ctggaaatg ggagggagacc 2565 193 gcttgtgccc ctggacggt acaataacaa actgtactga tgtcacaact ttcgcaagtc 2565 193 gcttgccc ctggacggt acaataacaa actgtactga tgtcacaact ttcgcaagtc 2565 | | | | CCC | tica | gac | саа | - | cca | agt | ccc | taa | | cta | cta | aaa | tcc | 1638 |
| 165 520 525 530 530 535 167 ctt gtg tgt ccc aag gat gaa gcc aag agc cca gcc cct gag acc tca 168 Leu Val Cys Pro Lys Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser 169 540 545 550 171 gac ctg gag cag ccc aca gaa ctg gat tct ctt ttc aga ggc ctg gcc 1734 174 Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala 175 555 560 565 177 ctg act gtg cag tgg gag tcc tgaggggaat gggaaaggct tggtgctcc 1785 181 tecetgtcc tacccagtgt cacatecttg gctgtcaatc ccatgcctgc ccatgcaca 182 cactetgcga tctggcctca gacgggtgcc cttgagagaa gcaggaggag tggcatgcag 183 ggccctgcc atgggtgcg tcctcaccgg aacaaagcag catgataagg actgcaagg 184 gggagctctg ggagcagct tgtgtagaca agcggtgcc ctgcagagca ccaectcta 186 acaccatgga tcaaggagga aatgcaggga aactcccagg gtccagagcc cacctcta 186 acaccatgga tcaaggagga catgaggac cctgcctct tctgcaagtca 2025 187 tcacaatcta gctcgacaga gcatgaggcc cctgcctct tctgcattgt tcaaaggtgg 188 gaagagagc tggaaaagaa ccaggctgg aaaagaacca gaaggaggt gggcagaac 2265 189 agaacaacc gcactettgc caaggcagg caacqcagga cggcaggac ctaggagg 190 gtgtggcct cagctcatc ccaggcagg caacqcagg cggaggac ctaggagg 190 gtgtggcct cagctcatc ccagccagg ccaactgctg aaaagaacca gaggaggac 2265 189 gtgtggcct cagctcattc ccagccagg caactgctg agaggagac ctaggagg 190 gtgtggcct cagctcattc ccagccagg caactgctg agaggagac ctaggagg 190 gtgtggcct cagctcattc ccagccagg caactgctg agaggagac ctaggagg 190 gtgtggccc ctggaacaa gcgaaatgca ggtccacca gaggaggac 2385 191 cattcctctg atagaacaa gcgaaatgca ggtccaccag ggaggagac acacaagcct 192 ttctcgcagg caggagttt agaccctatc ctgagaatg ggtttgaaag gaaggtagg 193 gctgtggccc ctggacggt acaataacaa actgtactg tgtcacaact ttgcaagcct 1845 1856 | | | | | | | | | | | | | | | | | | |
| 167 ctt gtg tgt ccc aag gat gaa gcc aag agc cca gcc cct gag acc tca 168 Leu Val Cys Pro Lys Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser 169 540 545 550 171 gac ctg gag cag ccc aca gaa ctg gat tct ctt ttc aga ggc ctg gcc 1734 Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala 175 555 560 565 177 ctg act gtg cag tgg gag tcc tgaggggaat gggaaaggct tggtgctcc 1785 178 Leu Thr Val Gln Trp Glu Ser 179 570 181 tccctgtccc tacccagtgt cacatccttg gctgtcaatc ccatgcctgc ccatgcaca 1842 cactctgcga tctggctgc ccttgagagaa gcagagggag tggcatgcag 1905 182 gggagctctg gggagcagct tgtgtagaca accacagagaga catgataagg actgcaaggag 1965 183 gggagctctg gggagcagct tgtgtagaca accacagagagagagagagagagagagagagaga | | _ | | | | | | 1 | | | | | | | | | | |
| Leu Val Cys Pro Lys Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser 169 540 545 550 171 gac ctg gag cag ccc aca gaa ctg gat tct ctt ttc aga ggc ctg gcc 1734 174 Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala 175 555 560 565 177 ctg act gtg cag tgg gag tcc tgaggggaat gggaaagget tggtgettec 1785 188 Leu Thr Val Gln Trp Glu Ser 179 570 181 tecetgteec tacecagtgt cacatecttg getgteaate ceatgeetge ceatgeaca 1845 182 cactetgega tetggeetea gaegggtgee ettgagagaa geagagggag tggeatgeag 1905 183 ggeeetgee atgggtgee tectcacegg aacaaageag catgataagg actgeageg 1965 184 gggagetetg gggageaget tgtgtagaca agegegtget egetgageee tgeaaggeag 2025 185 aaatgacagt geaaggaga aatgeagga aacteeegag gteeagagee eeaceteeta 2085 186 acaccatgga ttcaaagtge teagggaatt tgeeteteet tgeeecatte etggeeagtt 2145 187 teacaateta getegacaga geatgaggee eetgeetet etgteattgt teaaaggtgg 188 gaaggaggee tggaaagaa ceaggeetgg aaaagaacea gaaggagget gggeagaace 2265 189 agaacaacet geaettetge caaggeetgg aacaagaaca gaaggagget gggeagaace 2265 189 agaacaacet geaettetge caaggeetgg eaactgeetg aegttgeacg attteagett 2385 190 gtgtggeetg cageteatte ceagceagg caactgeetg aegttgeacg attteagett 2385 191 catteetetg atagaacaaa gegaaatgea ggteeacaag ggagggaga acacaageet 2445 192 tttetgeagg eaggagttte agaeectate etggaatgg ggtttgaaag gaaggtgagg 2505 193 getgtggeee etggaegggt acaataacaa actgtactga tgteacaact ttgcaagete 2565 | | ctt | ata | tat | ccc | aaq | gat | gaa | gcc | aag | agc | cca | gcc | cct | gag | acc | tca | 1686 |
| 1719 gac etg gag cag ccc aca gaa etg gat tet ett tte aga gge etg gcc 1734 174 Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala 175 555 560 565 177 etg act gtg cag tgg gag tee tgaggggaat gggaaagget tggtgettee 1785 178 Leu Thr Val Gln Trp Glu Ser 179 570 181 teeetgteee tacecagtgt cacateettg getgteaate ceatgeetge ceatgeacaa 1845 182 cactetgega tetggeetea gacgggtgee ettgaggaa geagagggag tggeatgeag 1905 183 ggeeettge atgggtgee teetcacegg aacaaagcag catgataagg actgeageg 1905 184 gggagetetg gggagcaget tgtgtagaca agegegtget egetgageee tgeaaggeag 2025 185 aaatgacagt geaaggaga aatgeagga aacteeegag gteeagagee ecaceteeta 2085 186 acaccatgga teaaagtge teagggaatt tgeeteteet tgeeecatte etggeeagtt 2145 187 teacaateta getegacaga geatgaggee eetgeette tgteattgt teaaaggteg 2025 188 gaagagagee tggaaaagaa ceaggeetgg aaaagaacea gaaggagget gggeagaee 2265 189 agaacaacet geaetetege caaggeeagg geaagaagga eggeaggage etaggaagag 2325 190 gtgtggeetg eageteatte eeageeagg caactgeetg acgtteaeg attteagett 2385 191 catteetetg atagaacaa gegaaatga ggteeacaag ggggggagaa acacaageet 2385 192 tttetgeagg caggagttt agaaccaate etggaatgg ggtttgaaag gaaggtgagg 2508 193 getgtggeee etggaeggt acaataacaa actgtactga tgteacaact ttgcaagete 2565 | | | | | | | | | | | | | | | | | | |
| Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala 175 | 169 | | | _ | | 540 | | | | | 545 | | | | | 550 | | |
| ctg act gtg cag tgg gag tee tgaggggaat gggaaagget tggtgettee 1785 Leu Thr Val Gln Trp Glu Ser 179 570 181 teeetgteee tacccagtgt cacateettg getgteaate ceatgeetge ceatgeeaca 1845 182 cactetgega tetggeetee aggggggee ettgaggaa geagggggag tggeatgeag 1905 183 ggeeetgee atgggtgee teetcacegg aacaaagcag catgataagg actgeageg 1965 184 gggagetetg gggagcaget tgtgtagaca agegggtget egetgageee tgeaaggeag 2025 185 aaatgacagt geaaggagga aatgeaggga aacteeegag gteeagagee eeaceteeta 2088 186 acaccatgga tteaaagtge teagggaatt tgeeteteet tgeeecatte etggeeagtt 2145 187 teacaateta getegacaga geatgaggee eetgeetett etgteattgt teaaaggtgg gaagaagagee eeagetgg 2005 188 gaagagagee tggaaaagaa eeaggeetgg aaaagaacca gaaggagget gggeagaace 2265 189 agaacaacet geaettetge caaggeeagg eeageagga eggeaggaet etagggaggg 2325 190 gtgtggeetg eageteatte eeageeagg caactgeetg aegttgeaeg attteagett 2385 191 catteetetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acacaageet 2445 192 tttetgeagg eaggagttte agaecetate etgagaatgg ggtttgaaag gaaggtgagg 2565 193 getgtggeee etggaegggt acaataacaa aetgtactga tgteacaact ttgeaagete 2565 | 171 | gac o | ctg | gag | cag | CCC | aca | gaa | ctg | gat | tct | ctt | ttc | aga | ggc | ctg | gcc | 1734 |
| tee the transfer of the transf | 174 | Asp 1 | Leu | Glu | Gln | Pro | Thr | Glu | Leu | Asp | Ser | Leu | Phe | Arg | Gly | Leu | Ala | |
| Leu Thr Val Gln Trp Glu Ser 179 570 181 tecetytee taccagty cacatectty getyteaate ceatycety ceatycaca 1845 182 cactetycya tetygeetea gaegyytyee ettyagagaa geagagygay tygeatycay 1905 183 gyceetyee atygytyee tecteaccyy aacaaageay catyataagy actycagegy 1965 184 gygagetety gygageaget tytytagaca agegyytyet egetyageee tyeaaagyaay 2025 185 aaatyacayt geaagyaya aatycagyya aacteeeya yteeagagee eeaceteeta 2085 186 acaccatyya teeagagya teeagyyaatt tyeeteteet tyeeeeatte etggeeagtt 2145 187 teacaateta getegacaya geatyagyee eetyeetett etgteattyt teaaagytyy 2205 188 gaagagagee tygaaaagaa eeagyeetyy aaaaayaaca gaagyayyet gygeagaace 2265 189 agaacaacet geaettetye eaagyeetyy aaaaayaaca gaagyayyet gygeagaace 2265 190 gtytygeety eageteatte eeageeagy eaactyeety acytyaaay 2325 191 catteetety atagaacaaa gegaaatyea gyteeaccay gyagyyaya acaataaca acytyactyy tyteaaay gaagytyagy 2505 193 getytygeee etygacyyt acaataaca actytactya tyteacaact ttycaayete 2565 | 175 | | | | 555 | | | | | 560 | | | | | 565 | | | |
| tecetgtee tacceagtgt cacatecttg getgteaate ceatgeetge ceatgeaca 1845 cactetgega tetggeetea gaegggtgee ettgagagaa geagagggag tggeatgeag 1905 gagageetege atgggtgee teeteacegg aacaaageag catgataagg actgeagegg 1965 aaatgacagt geaaggaga aatgeaggga aacteeegag gteeagagee teagaggaga aacteeegag gteeagagee ecaceteeta 2025 acaceteeta getegacaga ecagggaatt tgeeteet tgeeceatte etggeeagtt 1945 teacaateta getegacaga geatgaggee ectgeeteet tgeeceatte etggeeagtt 1945 gaagagagee tggaaaagaa ecaggeetge ectgeeteet tgeeceatte etggeeagtt 2145 teacaateta getegacaga geatgaggee ectgeeteet etgteattgt teaaaggtgg 2205 agaagagagee tggaaaagaa ecaggeetgg aaaagaacea gaaggagget gggeagaace 2265 agaacaacet geaettetge eaaggeeagg ecaceteetg acggagggeetggaggggggggggagaggggggggggggg | 177 | ctg a | act | gtg | cag | tgg | gag | tcc | tgaç | ggga | aat o | ggaa | aaggo | et to | ggtgd | cttco | 2 | 1785 |
| tecetytee tacecagty cacatectty getyteaate ceatycety ceatyceaca 1845 cactetycya tetygeetea gacygytyee ettyaagagaa geagagygay tygeatycay 1905 gygeeetyce atygytyege teeteacegy aacaaageay catyataayy actycayegy 1965 aaatyacay gygagcaget tytytagaca agegeytyet egetyaagee tygaaagyaay 2025 aaatyacay geaagyaga aatycayya aacteeegay yteeagagee ecacetoeta 2085 acaccatyya teeagagya teegagyaat tygeeteet tygeeceatte etygeaagyty 2025 teeacaateta getegacay geatyaayee ectygeetett etyteatty teaaaagyty 2205 gaagagagee tygaaaagaa eeaggeety aaaagaacea gaagyagyet gygeagaace 2205 gagacaacet geaettetye eaagyeety aaaaagaacea gaagyagyet etygaagagy 2205 gytyggeety eageteatte eeagecayy geeageagya egyeagyagy 2325 gytyggeety eageteatte eeagecayy caactyeety aegttyeaey attteagett 2385 tettetyeayy eaggattee agaceetate etygagaatyy gygyagyagy 2325 tttetyeayy eaggaytte agaceetate etygagaatyy gyttyaaay gaayytyagy 2565 getytygeee etygaegyyt acaataacaa actytactya tyteacaact ttygaaayete 2565 | 178 | Leu : | Thr | Val | Gln | Trp | Glu | Ser | | | | | | | | | | |
| cactetgea tetggeetea gaegggtgee ettgagagaa geagagggag tggeatgeag 1905 183 ggeeettgee atgggtgee teeteacegg aacaaageag eatgataagg actgeagegg 1965 184 gggagetetg gggageaget tgtgtagaea agegegtget egetgageee tgeaaggeag 2025 185 aaatgacagt geaaggaga aatgeaggga aacteeegag gteeagagee ecacetteta 2085 186 acaceatgga tteaaagtge teagggaatt tgeeteteet tgeeceatte etggeeagtt 2145 187 teacaateta getegacaga geatgaggee ectgeetett etgteattgt teaaaggtgg 2205 188 gaagagagee tggaaaagaa eeaggeetgg aaaagaacea gaaggagget gggeagaace 2265 189 agaacaacet geaettetge eaaggeeagg geeageagga eggeaggaet etagggaggg 2325 190 gtgtggeetg eageteatte eeageeagg caactgeetg aegttgeaeg attteagett 2385 191 catteetetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acacaaageet 2445 192 tttetgeagg eaggagtte agaeeetate etgagaatgg ggtttgaaag gaaggtgagg 2565 193 getgtggeee etggaegggt acaataacae actgtaetga tgteacaaet ttgeaagete 2565 | | | | | | | | | | | | | | | | | | |
| ggaggetetg gggaggaget tgtgtagaca ageggtget egetgageee tgeaagggag aatgeaggga aacteeegag gteeagagee teagggagat tgtgtagaca agegegtet egetgageee tgeaaggeag 2025 aaatgacagt geaaggaga aatgeaggga aacteeegag gteeagagee ceacetoeta 2085 acaceatgga tteaaagtge teagggaatt tgeetetet tgeeceatte etggeeagtt teaaaggtgg gaaggagee tggaaaagaa eeaggeetgg aaaagaacea gaaggagget gggcagaace 2265 agaacaacet geaettetge eaaggeetgg aaaagaacea gaaggagget etagggagg 2325 gtgtggeetg eageteatte eeageeaggg eaactgeetg aegttgeaeg attteagett 2385 eatteetetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acacaaageet 2445 ettetgeagg eaggagtte agaeeetate etggaaatgg ggtttgaaag gaaggtgagg 2565 getgtggeee etggaeggt acaataacae actgtaetga tgteacaact ttgeaagete 2565 | | | | | | | | | | | | | | | | | | |
| gggagetetg gggageaget tgtgtagaea agegegtget egetgageee tgeaaggeag 2025 aaatgaeagt geaaggaga aatgeaggga aacteeegag gteeagagee ceaectoota 2085 acaceatgga tteaaagtge teagggaatt tgeetetet tgeeecatte etggeeagtt 2145 teacaateta getegaeaga geatgaggee ectgeetett etgteattgt teaaaggtgg 2205 gaagagagee tggaaaagaa eeaggeetgg aaaagaacea gaaggagget gggeagaace 2265 agaacaacet geaettetge eaaggeeagg geeageagga eggeaggaet etagggaggg 2325 gtgtggeetg eageteatte eeageeaggg eaactgeetg aegttgeaeg attteagett 2385 catteetetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acacaageet 2445 tttetgeagg eaggagtte agaeeetate etgagaatgg ggtttgaaag gaaggtgagg getgtggeee etggaegggt acaataacae actgtaetga tgteacaact ttgeaagete 2565 | | | | | | | | | | | | | | | | | | |
| aaatgacagt gcaaggaga aatgeagga aacteeegag gteeagagee ceacetoeta 2088 185 aaatgacagt gcaaggaga aatgeagga aacteeegag gteeagagee ceacetoeta 2145 187 teacaateta getegacaga geatgaggee cetgeetett etgteattgt teaaaggtgg 2208 188 gaagagagee tggaaaagaa eeaggeetgg aaaagaacea gaaggagget gggeagaace 2265 189 agaacaacet geaettetge caaggeeagg geeageagga eggeaggaet etaggaggg 2325 190 gtgtggeetg eageteatte eeageeagg caactgeetg aegttgeaeg attteagett 2385 191 catteetetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acacaageet 2445 192 tttetgeagg eaggagtte agaeeetate etgagaatgg ggtttgaaag gaaggtgagg 2505 193 getgtggeee etggaegggt acaataacae actgtaetga tgteacaact ttgeaagete 2565 | | | | | | | | | | | | | | | | | | |
| acaccatgga ticaaagtgc teagggaatt tgeetetet tgeeceatte etggecagtt 2145 187 teacaateta getegacaga geatgaggee eetgeetett etgteattgt teaaaggtgg 2205 188 gaagagagee tggaaaagaa eeaggeetgg aaaagaacea gaaggagget gggeagaace 2265 189 agaacaacet geactietge eaaggeeagg geeageagga eggeaggaet etagggaggg 2325 190 gtgtggeetg eageteatte eeageeaggg eaactgeetg aegttgeaeg attteagett 2385 191 eatteetetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acacaageet 2445 192 titetgeagg eaggagtte agaeeetate etgagaatgg ggtttgaaag gaaggtgagg 2505 193 getgtggeee etggaegggt acaataacae actgtaetga tgteacaact ttgeaagete 2565 | | | - | | | | | | | | | | | | | | | |
| tcacaatcta getegacaga geatgaggee ectgeetett etgteattgt tcaaaggtgg 2208 188 gaagagagee tggaaaagaa eeaggeetgg aaaagaacea gaaggagget gggeagaace 2268 189 agaacaacet geacttetge caaggeeagg geeageagga eggeaggaet etagggaggg 2328 190 gtgtggeetg eageteatte eeageeaggg caactgeetg aegttgeaeg attteagett 2388 191 catteetetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acacaageet 2448 192 tttetgeagg eaggagtte agaeeetate etgagaatgg ggtttgaaag gaaggtgagg 2508 193 getgtggeee etggaegggt acaataacae actgtaetga tgteacaact ttgeaagete 2568 | | | | | | | | | | | | | | | | | | |
| 188 gaagagagee tggaaaagaa eeaggeetgg aaaagaacea gaaggagget gggeagaace 2265 189 agaacaacet geacttetge caaggeeagg geeageagga eggeaggaet etagggaggg 190 gtgtggeetg eageteatte eeageeaggg caactgeetg aegttgeaeg attteagett 2385 191 catteetetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acacaageet 2445 192 tttetgeagg eaggagtte agaeeetate etgagaatgg ggtttgaaag gaaggtgagg 193 getgtggeee etggaegggt acaataacae actgtaetga tgteacaact ttgeaagete 2565 | | | | | | | | | | | | | | | | | | |
| agaacaacct gcacttetge caaggecagg gccagcagga eggeaggaet etagggaggg 2325 190 gtgtggeetg cageteatte ecagecaggg caactgeetg aegttgeacg attteagett 2385 191 catteetetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acacaageet 2445 192 tttetgeagg caggagtte agaceetate etgagaatgg ggtttgaaag gaaggtgagg 2505 193 getgtggeee etggaegggt acaataacae actgtaetga tgteacaact ttgeaagete 2565 | | | | | | | | | | | | | | | | | | |
| gtgtggcctg cagctcattc ccagccaggg caactgcctg acgttgcacg atttcagctt 2385 191 cattcctctg atagaacaaa gcgaaatgca ggtccaccag ggagggagac acacaagcct 2445 192 tttctgcagg caggagttc agaccctatc ctgagaatgg ggtttgaaag gaaggtgagg 2505 193 gctgtggccc ctggacgggt acaataacac actgtactga tgtcacaact ttgcaagctc 2565 | | gaaga | agag | jee t | .ggae | taaya | a cc | ayyo | cege | , aac | ragad | acca | gaag | gagg | act o | yyyc rtam | rgadee | |
| 191 cattectetg atagaacaaa gegaaatgea ggteeaceag ggagggagae acaeaageet 2445 192 titetgeagg caggagtite agaceetate etgagaatgg ggitigaaag gaaggigagg 2505 193 getgiggee etggaegggi acaataacae acigtactga tgicacaact tigeaagete 2565 | | | | | | | | | | | | | | | | | | |
| 192 tttctgcagg caggagtttc agaccctatc ctgagaatgg ggtttgaaag gaaggtgagg 2505 193 gctgtggccc ctggacgggt acaataacac actgtactga tgtcacaact ttgcaagctc 2565 | | | | | | | | | | | | | | | | | | |
| 193 gctgtggccc ctggacgggt acaataacac actgtactga tgtcacaact ttgcaagctc 2565 | | tttat | tar: | iaa a | rage | acae | ra go | racco | tatr | . 990 : ata | ragaa | ataa | gatt | taaa | aa c | gaage | rtgagg | |
| 99-99 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

DATE: 08/16/2001

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/925,055 TIME: 13:28:58

Input Set : A:\00-56.txt
Output Set: N:\CRF3\08162001\I925055.raw

| 195 196 197 | ataa taat | acaco tagto | cta (gec : | cctc. tggt: | atgga acat | ag t gg g | tgtg cagt | gtga. gece | a ga | tgaai | atga | agto | catg | tct | ttaa | gggatc agtgct aaaaaa | 2685 2745 2805 |
|-------------------|---|----------------|----------------|----------------|---------------|--------------|--------------|---------------|--------|-------|------|-----------|------|-----|------|----------------------------|----------------------|
| 198 | : aaaaaaaaa atageggeeg eetega 283 0 <210> SEQ ID NO: 2 | | | | | | | | | | | | | | | 2831 | |
| | | | | | | | | | | | | | | | | | |
| | <2112 | | | | 4 | | | | | | | | | | | | |
| | <212 | | | | | | | | | | | | | | | | |
| | <213 | | | | | sap: | ıen | | | | | | | | | | |
| | <400 | | | | | | | | | | | | | | | | |
| 206 | Met | Arg | Thr | Leu | | Thr | Ile | Leu | Thr | | Glγ | Ser | Leu | Ala | Ala | His | |
| 207 | 1 | | | | 5 | | | | | 10 | | _ | | | 15 | | |
| 208 | Ala | Pro | Glu | Asp | Pro | Ser | Asp | Leu | | Gln | His | Val | Lys | | Gln | Ser | |
| 209 | | | | 20 | | | | | 25 | | | | | 30 | | | |
| 210 | Ser | Asn | Phe | Glu | Asn | Ile | Leu | Thr | Trp | Asp | Ser | Gly | Pro | Glu | Gly | Thr | |
| 211 | | | 35 | | | | | 40 | | | | | 45 | | | | |
| 212 | Pro | Asp 50 | Thr | Val | Tyr | Ser | Ile 55 | Glu | Tyr | Lys | Thr | Tyr 60 | Gly | Glu | Arg | Asp | |
| 214 | Trp | Val | Ala | Lys | Lys | Gly | Cys | Gln | Arg | Ile | Thr | Arg | Lys | Ser | Cys | Asn | |
| 215 | 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| 216 | Leu | Thr | Val | Glu | Thr | Gly | Asn | Leu | Thr | Glu | Leu | Tyr | Tyr | Ala | Arg | Val | |
| 217 | | | | | 85 | _ | | | | 90 | | _ | | | 95 | | |
| 218 | Thr | Ala | Val | Ser | Ala | Gly | Gly | Arq | Ser | Ala | Thr | Lys | Met | Thr | Asp | Arg | |
| 219 | | | | 100 | | - | - | | 105 | | | - | | 110 | | - | |
| 220 | Phe | Ser | Ser | Leu | Gln | His | Thr | Thr | Leu | Lys | Pro | Pro | Asp | Val | Thr | Cys | |
| 221 | | | 115 | | | | | 120 | | - | | | 125 | | | • | |
| 222 | Ile | Ser | | Val | Ara | Ser | Ile | | Met | Ile | Val | His | Pro | Thr | Pro | Thr | |
| 223 | | 130 | -10 | | * 5 | | 135 | | | | | 140 | | | | | |
| 224 | Pro | | Ara | Ala | Glv | Asp | | His | Ara | Leu | Thr | | Glu | Asp | Ile | Phe | |
| 225 | 145 | | 5 | | 1 | 150 | | | | | 155 | | | • | | 160 | |
| 226 | | Asp | Leu | Phe | Tvr | | Leu | Glu | Leu | Gln | | Asn | Ara | Thr | Tyr | Gln | |
| 227 | 20 | | | | 165 | | | | | 170 | | | , | | 175 | | |
| 228 | Met | His | I.eu | Glv | | Lvs | Gln | Ara | Glu | Tvr | Glu | Phe | Phe | Glv | Leu | Thr | |
| 229 | 1100 | | Lea | 180 | 011 | 210 | | 9 | 185 | . 1 - | | | | 190 | | | |
| 230 | Pro | Asn | Thr | | Phe | Len | Glv | Thr | | Met | Tle | Cvs | Val | | Thr | Tro | |
| 231 | | 1135 | 195 | -51 u | 1110 | 1100 | 24 1 | 200 | | ., | | -1- | 205 | | | 1 | |
| 232 | Δla | Lvs | | Ser | Ala | Pro | Tyr | | Cvs | Ara | Val | Lvs | | Leu | Prc | Asp | |
| 233 | AIG | 210 | OLU | DCI | ,,,,u | 110 | 215 | 1100 | 0,0 | 9 | | 220 | | | • | | |
| 234 | hra | | Trn | Thr | Tur | Ser | | Ser | Glv | Ala | Phe | | Phe | Ser | Met | Glv | |
| 235 | 225 | 1111 | ттр | 1111 | ı yı | 230 | 1110 | 001 | () ± y | 111.0 | 235 | пса | 1110 | 001 | 1100 | 240 | |
| 236 | | Tou | Val | ת ז ה | Un l | | CVC | mur | T.211 | Ser | | Δτσ | Tur | Val | Thr | | |
| 257 | | | | | 245 | | | | | 250 | | | | | 255 | | |
| 238 | Pro | Pro | Ala | | Pro | Asn | Ser | Leu | | Val | Gln | Arg | Val | Leu | Thr | Phe | |
| 039 | | | | 260 | | | | | 265 | | | | | 270 | | | |
| 240 | Gln | Pro | Leu | Arg | Phe | Ile | Gln | Glu | His | Val | Leu | Ile | | Val | Phe | Asp | |
| . 41 | | | 275 | | | | | 280 | | | | | 285 | | | | |
| 242 | Leu | Ser | Gly | Pro | Ser | Ser | Leu | Ala | Gln | Pro | Val | Gln | Tyr | Ser | Gln | Ile | |
| 245 | | 290 | | | | | 295 | | | | | 300 | | | | | |
| 244 | Arg | Val | Ser | Gly | Pro | Arg | Glu | Pro | Ala | Gly | Alā | Pro | Gln | Arg | His | | |
| 245 | 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| | | | | | | | | | | | | | | | | | |

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/925,055 TIME: 13:28:58

DATE: 08/16/2001

Input Set : A:\00-56.txt
Output Set: N:\CRF3\08162001\1925055.raw

| 246 | Leu | Ser | Glu | Ile | Thr | Tyr | Leu | Gly | Gln | | Asp | Ile | Ser | Ile | | Gln |
|-------------|----------|------------|------------|------------|----------|------|------------|-------|------------|-----------|----------|-------|-------------|------------|-----------|----------|
| 247 | _ | _ | _ | | 325 | _ | _ | - 1 | ~ 1 | 330 | <u> </u> | | - | 0 | 335 | n 1 - |
| 248 249 | Pro | Ser | Asn | Val 340 | Pro | Pro | Pro | Gln | 11e 345 | Leu | Ser | Pro | Leu | Ser 350 | Tyr | Ala |
| 250 | Pro | Asn | Ala | | Pro | Glu | Val | | | Pro | Ser | Tyr | | Pro | Gln | Val |
| 251 | | | 355 | | | | _ | 360 | _ | - 3 | _ | ~ 1 | 365 | * 1 | ~ | |
| 2.52 253 | Thr | Pro 370 | Glu | Ala | Glr. | Phe | 275 375 | Phe | Tyr | Ala | Pro | 380 | Ala | lle | ser | Lys |
| 254 | Val | - | Pro | Ser | Ser | Tyr | | Pro | Gln | Ala | Thr | Pro | Asp | Ser | Trp | Pro |
| 255 | 385 | | | | | 390 | | | | | 395 | | _ | | | 400 |
| 256 | Pro | Ser | Tyr | Gly | Val | Cys | Met | Glu | Gly | Ser | Gly | Lys | Asp | Ser | | Thr |
| 257 | | | | | 405 | | | | | 410 | | | | | 415 | |
| 260 | Gly | Thr | Leu | | Ser | Pro | Lys | His | Leu 425 | Arg | Pro | Lys | Gly | Gln 430 | Leu | Glr. |
| 261 262 | Tuc | Clu | Pro | 420 Pro | בות | Clu | Sar | Cus | | ī.eu | Glv | Glv | T.e.u | | Len | Gln |
| 263 | гуз | GIU | 435 | FIO | MIG | СТУ | Der | 440 | 1100 | пси | O1 y | O 1 y | 445 | 501 | Вса | 01 |
| 264 | Glu | Val | Thr | Ser | Leu | Ala | Met | | Glu | Ser | Gln | Glu | | Lys | Ser | Leu |
| 265 | 010 | 450 | | 001 | 200 | | 455 | | | | | 460 | | 3 | | |
| 266 | His | Gln | Pro | Leu | Gly | Ile | Cys | Thr | Asp | Arg | Thr | Ser | Asp | Pro | Asn | Val |
| 267 | 465 | | | | _ | 470 | | | | | 475 | | | | | 480 |
| 268 | Leu | His | Ser | Gly | Glu | Glu | Gly | Thr | Pro | Gln | Tyr | Leu | Lys | Gly | Gln | Leu |
| 269 | | | | | 485 | | | | | 490 | | | | | 495 | |
| 270 | Pro | Leu | Leu | | Ser | Val | Gln | Ile | | Gly | His | Pro | Met | | Leu | Pro |
| 271 | | | | 500 | | | _ | _ | 505 | | ~ | _ | 0. 1 | 510 | _ | <u> </u> |
| 272 | Leu | Gln | Pro | Pro | Ser | Gly | Pro | | Ser | Pro | Ser | Asp | | Gly | Pro | Ser |
| 273 | _ | m | 515 Gly | - | . | C1 | C ~ 10 | 520 | 17-7 | Cuc | Dwo | T | 525 | C1,, | Λl ¬ | Tuc |
| 274 275 | Pro | 530 | СТА | ьeu | Leu | GIU | 535 | ьeu | vai | Cys | rio | 540 | АЗР | GIU | АТА | шуз |
| 276 | Ser | | Ala | Pro | Glu | Thr | | Asn | Leu | Glu | Gln | | Thr | Glu | Leu | Asp |
| 277 | 545 | 110 | nia | 110 |)JLu | 550 | DCI | 110 p | ДСС | 310 | 555 | | | 014 | 200 | 560 |
| 278 | | Leu | Phe | Ara | Gly | | Ala | Leu | Thr | Val | | Trp | Glu | Ser | | |
| 279 | ~ | | | 9 | 565 | | | | | 570 | | • | | | | |
| 281 | <210 | > SE | QID | NO: | 3 | | | | | | | | | | | |
| 282 | <2112 | > LE | NGTH | : 213 | 1 | | | | | | | | | | | |
| 283 | <2123 | > TY1 | PE: I | PRT' | | | | | | | | | | | | |
| | <213: | | | | | sap: | iens | | | | | | | | | |
| | < 400: | | | | | _ | | _ | - C - 1 | | | | D) | C1 | C | C |
| | Pro | Glu | Asp | Pro | | Asp | Leu | Leu | GIn | | Val | ГÀЗ | Phe | Gin | ser 15 | Ser |
| 288 | l Asn | D | C1 | 71 | 5 | T ou | Thr | m ~~. | 7 cn | 10 Sor | C111 | Drice | Glu | Gly | | Pro |
| 289 290 | ASI | Pne | GIU | 20 20 | 116 | ьец | 1111 | ттр | 25 | 261 | оту | LIC | GIU | 30 | 11.1 | 110 |
| 291 | Acn | Thr | Val | | Ser | Tle | Glu | Tvr | | Thr | Tvr | Glv | Glu | | Asp | Trp |
| 292 | Азр | 1111 | 35 | 1 1 1 | 501 | 110 | 014 | 40 | Dyo | | -] - | | 45 | 5 | L | |
| 393 | Val | Ala | Lys | Lys | Gly | Cys | Gln | Arg | Ile | Thr | Arg | Lys | Ser | Cys | Asn | Leu |
| 294 | | 50 | | | | | 55 | | | | | 60 | | | | |
| 295 | Thr | Val | Glu | Thr | Gly | Asn | Leu | Thr | Glu | Leu | | Tyr | Ala | Arg | Vāl | Thr |
| . 96 | 65 | | | | | 70 | | | | | 7 5. | | | _ | _ | 80 |
| 297 | Ala | Val | Ser | Ala | | Gly | Arg | Ser | Ala | | Lys | Met | Thr | Asp | | Phe |
| 298 | | | | | 95 | | | | | 90 | | | | | 95 | |

<210> 30

<211> 484

<212> PRT

<213> Artificial Sequence

<400> 30

Errorpol: Field 223 13 required
When 213 response 15 Artificial Sequence,
A mon mandatory description or explanation
15 required in field 223.

The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/925,055

DATE: 08/16/2001

TIME: 13:28:59

Input Set : A:\00-56.txt

Output Set: N:\CRF3\08162001\I925055.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1093 M:258 W: Mandatory Feature missing, <220> FEATURE:

L:1093 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION: